



EMAIL: info@fulbright.com
DIRECT DIAL: (512) 536-3018

FULBRIGHT & JAWORSKI L.L.P.

A REGISTERED LIMITED LIABILITY PARTNERSHIP
600 CONGRESS AVENUE, SUITE 2400
AUSTIN, TEXAS 78701-3271
WWW.FULBRIGHT.COM

TELEPHONE: (512) 474-5201
FACSIMILE: (512) 536-4598

June 10, 2002

2877
d5
6.24.2

RECEIVED
JUN 18 2002
TECHNOLOGY CENTER 2800

RECEIVED
JUN 21 2002

CERTIFICATE OF MAILING 37 C.F.R. 1.8	
I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date below:	
June 10, 2002	Michael C. Barrett
Date	Michael C. Barrett

Commissioner for Patents
Washington, DC 20231

Re: *U.S. Patent Application No. 09/941,165 entitled "PULSED-MULTILINE EXCITATION FOR COLOR-BLIND FLUORESCENCE DETECTION" by Graham B. I. Scott et al.*
Client Reference: OTA 01-72
Our Reference: BAYM:002US

Sir:

Enclosed for filing in the above-referenced patent application is an Information Disclosure Statement, Form PTO-1449, and references (A1-A19, C1-C60).

No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to the enclosed materials, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No.: 50-1212/10102817/MCB.

Please date stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,

Michael C. Barrett

Michael C. Barrett
Reg. No. 44,523

MCB/cmb
Encl.: as noted

25172283.1



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Graham B. I. Scott *et al.*

Serial No.: 09/941,165

Filed: August 28, 2001

For: PULSED-MULTILINE EXCITATION
FOR COLOR-BLIND FLUORESCENCE
DETECTION

Group Art Unit: 2877

Examiner: Unknown

Atty. Dkt. No.: BAYM:002US

RECEIVED
JUN 18 2002
TECHNOLOGY CENTER 2800

CERTIFICATE OF MAILING 37 C.F.R 1.8	
I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date below:	
June 10, 2002	<i>Michael C. Barrett</i>
Date	Michael C. Barrett

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No.: 50-1212/10102817/MCB.

Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,

Michael C. Barrett

Michael C. Barrett

Reg. No. 44,523

Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.
600 Congress Avenue, Suite 2400
Austin, Texas 78701
(512) 474-5201

Date: June 10, 2002

Form PTO-1449 (modified)

Atty. Docket No.
BAYM:002USSerial No.
09/941,165

List of Patents and Publications for Applicant's

Applicant
Graham B. I. Scott *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:
August 28, 2001Group:
2877U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 2

U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1	4,582,788	4/15/86	Erlich	435	6	1/7/83
	A2	4,656,127	4/7/87	Mundy	435	6	4/23/84
	A3	4,683,194	7/28/87	Saiki <i>et al.</i>	435	6	3/28/85
	A4	4,683,202	7/28/87	Mullis	435	91	10/25/85
	A5	5,296,375	3/22/94	Kricka <i>et al.</i>	435	291	5/1/92
	A6	5,304,487	4/19/94	Wilding <i>et al.</i>	435	291	5/1/92
	A7	5,784,157	7/21/98	Gorfinkel <i>et al.</i>	356	318	11/21/95
	A8	5,846,710	12/8/98	Bajaj	435	6	8/6/93
	A9	5,856,174	1/5/99	Lipshutz <i>et al.</i>	435	286.5	1/19/96
	A10	5,888,819	3/30/99	Goelet <i>et al.</i>	435	5	3/5/91
	A11	5,904,824	5/18/99	Oh	204	601	3/7/97
	A12	5,991,082	11/23/99	Tsunashima <i>et al.</i>	359	618	2/21/97
	A13	6,004,744	12/21/99	Goelet <i>et al.</i>	435	5	10/11/91
	A14	6,013,431	1/11/00	Soderlund <i>et al.</i>	435	5	12/2/93
	A15	6,038,023	3/14/00	Carlson <i>et al.</i>	356	326	7/31/98
	A16	6,139,800	10/31/00	Chandler	422	82.08	6/22/98
	A17	6,153,379	11/28/00	Caskey <i>et al.</i>	435	6	6/22/94
	A18	6,215,598 B1	4/10/01	Hwu	359	641	10/5/98
	A19	6,226,126 B1	5/1/01	Conemac	359	618	4/19/00

Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No

25097222.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)



Form PTO-1449 (modified)

Atty. Docket No.
BAYM:002USSerial No.
09/941,165

List of Patents and Publications for Applicant's

Applicant
Graham B. I. Scott *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:
August 28, 2001Group:
2877U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 2

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C1	Anazawa <i>et al.</i> , "A capillary array gel electrophoresis system using multiple laser focusing for DNA sequencing," <i>Anal. Chem.</i> , 68:2699-2704, 1996.
	C2	Barany, "Genetic disease detection and DNA amplification using cloned thermostable ligase," <i>Proc. Natl. Acad. Sci. USA</i> , 88:189-193, 1991.
	C3	Brenner <i>et al.</i> , "Gene expression analysis by massively parallel signature sequencing (MPSS) on microbead arrays," <i>Nat Biotechnol.</i> , 18:630-634, 2000.
	C4	Brenner <i>et al.</i> , "In vitro cloning of complex mixtures of DNA on microbeads: physical separation of differentially expressed cDNAs," <i>PNAS</i> , 97(4):1665-1670, 2000.
	C5	Cohen <i>et al.</i> , "Separation and analysis of DNA sequence reaction products by capillary gel electrophoresis," <i>J. Chromatogr.</i> , 516:49-60, 1990.
	C6	Crabtree <i>et al.</i> , "Construction and evaluation of a capillary array DNA sequencer based on a micromachined sheath-flow cuvette," <i>Electrophoresis</i> , 21:1329-1335, 2000.
	C7	Deeb <i>et al.</i> , "A Pro12Ala substitution in PPAR γ 2 associated with decreased receptor activity, lower body mass index and improved insulin sensitivity," <i>Nature Genet.</i> , 20:284-287, 1998.
	C8	Drossman <i>et al.</i> , "High-speed separations of DNA sequencing reactions by capillary electrophoresis," <i>Anal. Chem.</i> , 62:900-903, 1990.
	C9	Effenhauser, <i>et al.</i> "High-speed separation of antisense oligonucleotides on a micromachined capillary electrophoresis device," <i>Anal. Chem.</i> , 66:2949-2953, 1994.
	C10	Effenhauser, <i>et al.</i> "Glass chips for high-speed capillary electrophoresis separations with submicrometer plate heights," <i>Anal. Chem.</i> , 65:2637-2642, 1993.
	C11	Harrison <i>et al.</i> , "Micromachining a miniaturized capillary electrophoresis-based chemical analysis system on a chip," <i>Science</i> , 261:895-897, 1993.
	C12	Huang <i>et al.</i> , "Bias in quantitative capillary zone electrophoresis caused by electrokinetic sample injection," <i>Anal. Chem.</i> , 60:375-377, 1988..
	C13	Huang <i>et al.</i> , "Capillary array electrophoresis using laser-excited confocal fluorescence detection: an approach to high-speed, high-throughput DNA sequencing," <i>Anal Chem.</i> , 64:967-972, 1992.
	C14	Ju <i>et al.</i> , "Fluorescence energy transfer dye-labeled primers for DNA sequencing and analysis," <i>Proc. Natl. Acad. Sci. U S A.</i> , 92:4347-4351, 1995.

25097222.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)



Form PTO-1449 (modified)

Atty. Docket No.
BAYM:002USSerial No.
09/941,165

List of Patents and Publications for Applicant's

Applicant
Graham B. I. Scott *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:
August 28, 2001Group:
2877U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 2

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C15	Kambara and Takahashi, "Multiple-sheathflow capillary array DNA analyser," <i>Nature</i> , 361: 565-566, 1993.
	C16	Karger <i>et al.</i> , "Multiwavelength fluorescence detection for DNA sequencing using capillary electrophoresis," <i>Nucleic Acids Res.</i> , 19:4955-4962, 1991.
	C17	Kheterpal <i>et al.</i> , "DNA sequencing using a four-color confocal fluorescence capillary array scanner," <i>Electrophoresis</i> , 17:1852-1859, 1996.
	C18	Kornher and Livak "Mutation detection using nucleotide analogs that alter electrophoretic mobility," <i>Nucleic Acids Res.</i> , 17(19):7779-7784, 1989.
	C19	Kuppuswamy <i>et al.</i> , "Single nucleotide primer extension to detect genetic diseases: Experimental application to hemophilia B (factor IX) and cystic fibrosis genes," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 88:1143-1147, 1991.
	C20	Kurg <i>et al.</i> , "Arrayed primer extension: solid-phase four-color DNA resequencing and mutation detection technology," <i>Genet Testing</i> , 4(1):1-7, 2000.
	C21	Landegren <i>et al.</i> , "A ligase-mediated gene detection technique," <i>Science</i> , 241:1077-1080, 1988.
	C22	Lee and Anvret. "Identification of the most common mutation within the porphobilinogen deaminase gene in Swedish patients with acute intermittent porphyria," <i>Proc Natl Acad Sci U S A.</i> , 88:10912-10915, 1991.
	C23	Lieberwirth <i>et al.</i> , "Multiplex dye DNA sequencing in capillary gel electrophoresis by diode laser-based time-resolved fluorescence detection," <i>Anal Chem.</i> , 70:4771-4779, 1998.
	C24	Livak and Hainer. "A microtiter plate assay for determining apolipoprotein E genotype and discovery of a rare allele," <i>Hum Mutat.</i> , 3:379-385, 1994.
	C25	Lu and Yeung. "Optimization of excitation and detection geometry for multiplexed capillary array electrophoresis of DNA fragments," <i>Appl. Spectrosc.</i> , 49(5): 605-609, 1995.
	C26	Luckey <i>et al.</i> , "High speed DNA sequencing by capillary electrophoresis," <i>Nucleic Acids Res.</i> , 18(15):4417-4421, 1990.
	C27	Luryi, CRISP Abstract: Grant Number 5R01HG01487-05. 4 Color automated DNA sequencing machine with asynchronous network operation, 4/1996—6/2002.
	C28	Madabhushi, "Separation of 4-color DNA sequencing extension products in noncovalently coated capillaries using low viscosity polymer solutions," <i>Electrophoresis</i> 19:224-230, 1998.

25097222.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

Form PTO-1449 (modified)

Atty. Docket No.
BAYM:002USSerial No.
09/941,165

List of Patents and Publications for Applicant's

Applicant
Graham B. I. Scott *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:
August 28, 2001Group:
2877U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 2

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C29	Manz, <i>et al.</i> , "Planar chips technology for miniaturization and integration of separation techniques into monitoring systems," <i>J. Chromatogr.</i> , 593:253-258, 1992.
	C30	Meaburn, "Signal to noise ratios-the principal criteria of merit," In: <i>Detection and Spectrometry of Faint Light</i> , Reidel, Dordrecht, Holland, 246-266, 1976.
	C31	Metzker <i>et al.</i> , "Electrophoretically uniform fluorescent dyes for automated DNA sequencing," <i>Science</i> , 271:1420-1422, 1996.
	C32	Metzker <i>et al.</i> , "Termination of DNA synthesis by novel 3'-modified-deoxyribonucleoside 5'-triphosphates," <i>Nucleic Acids Res.</i> , 22:4259-4267, 1994.
	C33	Nickerson <i>et al.</i> , "Automated DNA diagnostics using an ELISA-based oligonucleotide ligation assay," <i>Proc Natl Acad Sci USA.</i> , 87:8923-8927, 1990.
	C34	Nikiforov <i>et al.</i> , "Genetic Bit Analysis: a solid phase method for typing single nucleotide polymorphisms," <i>Nucleic Acids Res.</i> , 22(20):4167-4175, 1994.
	C35	Nyren <i>et al.</i> , "Solid phase DNA minisequencing by an enzymatic luminometric inorganic pyrophosphate detection assay," <i>Anal. Biochem.</i> , 208:171-175, 1993.
	C36	Prezant and Fischel-Ghodsian, "Trapped-oligonucleotide nucleotide incorporation (TONI) assay, a simple method for screening point mutations," <i>Hum Mutat.</i> , 1:159-164, 1992.
	C37	Prober <i>et al.</i> , "A system for rapid DNA sequencing with fluorescent chain-terminating dideoxynucleotides," <i>Science</i> , 238:336-341, 1987.
	C38	Quesada and Zhang "Multiple capillary DNA sequencer that uses fiber-optic illumination and detection," <i>Electrophoresis</i> , 17:1841-1851, 1996.
	C39	Quesada <i>et al.</i> , "Multi-capillary optical waveguides for DNA sequencing," <i>Electrophoresis</i> , 19:1415-1427, 1998.
	C40	Ronaghi <i>et al.</i> , "A sequencing method based on real-time pyrophosphate," <i>Science</i> , 281:363, 365, 1998.
	C41	Rosenblum <i>et al.</i> , "New dye-labeled terminators for improved DNA sequencing patterns," <i>Nucleic Acids Res.</i> , 25:4500-4504, 1997.
	C42	Sambrook <i>et al.</i> , "Molecular Cloning," <i>A Laboratory Manual</i> , 2d Ed., Cold Spring Harbor Laboratory Press, New York, 13.7-13.9:1989.

25097222.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)



Form PTO-1449 (modified)

Atty. Docket No.
BAYM:002USSerial No.
09/941,165

List of Patents and Publications for Applicant's

Applicant
Graham B. I. Scott *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:
August 28, 2001Group:
2877U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 2

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C43	Shibata <i>et al.</i> , "RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer," <i>Genome Res.</i> 10:1757-1771, 2000.
	C44	Shumaker <i>et al.</i> , "Mutation detection by solid phase primer extension," <i>Hum Mutat.</i> , 7:346-354, 1996.
	C45	Smith <i>et al.</i> , "Fluorescence detection in automated DNA sequence analysis," <i>Nature</i> , 321(6071):674-679, 1986.
	C46	Sokolov, "Primer extension technique for the detection of single nucleotide in genomic DNA," <i>Nucleic Acids Res.</i> , 18(12):3671, 1990.
	C47	Sweedler <i>et al.</i> , "Fluorescence detection in capillary zone electrophoresis using a charge-coupled device with time-delayed integration," <i>Anal. Chem.</i> , 63:496-502, 1991.
	C48	Swordlow and Gesteland, "Capillary gel electrophoresis for rapid, high resolution DNA sequencing," <i>Nucleic Acids Res.</i> , 18(6): 1415-1419, 1990.
	C49	Swordlow <i>et al.</i> , "Capillary gel electrophoresis for DNA sequencing. Laser-induced fluorescence detection with the sheath flow," <i>J Chromatogr.</i> , 516:61-67, 1990.
	C50	Swordlow <i>et al.</i> , "Three DNA sequencing methods using capillary gel electrophoresis and laser-induced fluorescence," <i>Anal Chem.</i> , 63:2835-2841, 1991.
	C51	Syvanen <i>et al.</i> , "A primer-guided nucleotide incorporation assay in the genotyping of Apolipoprotein E," <i>Genomics</i> , 8:684-692, 1990.
	C52	Takahashi <i>et al.</i> , "Multiple sheath-flow gel capillary-array electrophoresis for multicolor fluorescent DNA detection," <i>Anal. Chem.</i> , 66:1021-1026, 1994.
	C53	Taylor and Yeung, "Multiplexed fluorescence detector for capillary electrophoresis using axial optical fiber illumination," <i>Anal. Chem.</i> , 65: 956-960, 1993.
	C54	Tsuda <i>et al.</i> , "Rectangular capillaries for capillary zone electrophoresis," <i>Anal. Chem.</i> , 62:2149-2152, 1990.
	C55	Ueno and Yeung, "Simultaneous monitoring of DNA fragments separated by electrophoresis in a multiplexed array of 100 capillaries," <i>Anal. Chem.</i> , 66:1424-1431, 1994.
	C56	Wei and Hemmings, "The NOTCH4 locus is associated with susceptibility to schizophrenia," <i>Nature Genet.</i> , 25:376-377, 2000.

25097222.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)



Form PTO-1449 (modified)

Atty. Docket No.
BAYM:002USSerial No.
09/941,165

List of Patents and Publications for Applicant's

Applicant
Graham B. I. Scott *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:
August 28, 2001Group:
2877U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 2

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C57	Woolley and Mathies, "Ultra-high-speed DNA fragment separations using microfabricated capillary array electrophoresis chips," <i>Proc Natl Acad Sci U S A</i> , 91:11348-11352 1994.
	C58	Yeo <i>et al.</i> , "A frameshift mutation in MC4R associated with dominantly inherited human obesity," <i>Nature Genet.</i> , 20:111-112, 1998.
	C59	Zagursky and McCormick, "DNA sequencing separations in capillary gels on a modified commercial DNA sequencing instrument," <i>Biotechniques</i> , 9(1): 74-79, 1990.
	C60	Zhang <i>et al.</i> , "A multiple-capillary electrophoresis system for small-scale DNA sequencing and analysis," <i>Nucleic Acids Res.</i> , 27(24):e36, i-vii, 1999.

25097222.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

